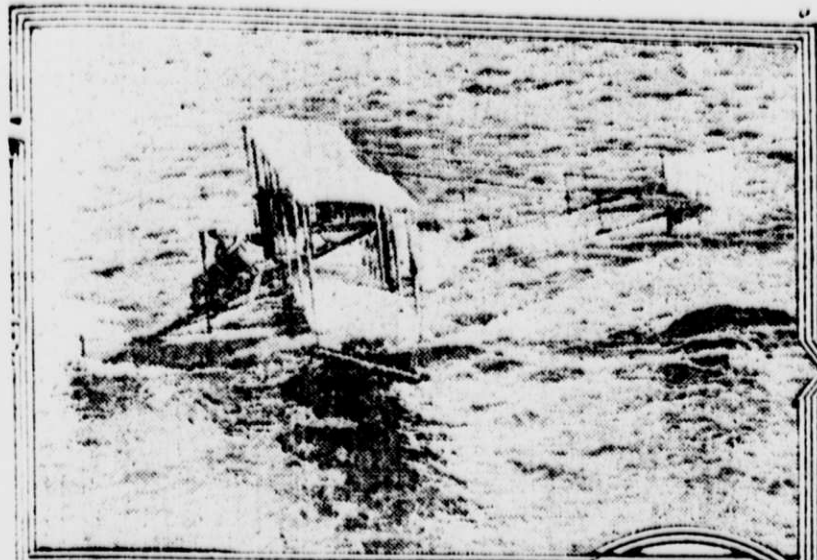


# PIONEER AIR CONQUERORS TO BE EXHIBITED

Machines Used by Aviators in Early Flight Attempts to Be Shown by Aero Club of America—Ten Day Gathering at Grand Central Palace of the High Fliers in Air



Hydro-Aeroplane in the Atlantic



Robert J. Collier, President, Aero Club of America.

To stimulate an interest in human flight and at the same time give the public an idea of its marvellous advancement the Aero Club of America has undertaken to conduct what in all probability will be the most important and complete exhibition of aircraft ever shown here or abroad.

It will be the first show of its kind ever held in this country and will take place in the Grand Central Palace May 9 to 18. Both historical and modern apparatus, American and foreign, will be on view and lecturers will be on hand to explain the various contrivances.

Through its representatives in Europe the club has been able to obtain several of the record making machines in the big races during the last year, which will be on view in competition with the American products.

It is the object of the committee in charge to conduct the show along the lines of the successful Paris aerodrome only on broader plans. A. C. Yates, the business manager, said the list of exhibits so far range in value from \$25,000 to \$50,000 and that every phase in aerial navigation has been anticipated ranging from the parachute, spherical and dirigible balloons to the aeroplane and hydro-aeroplane.

The historical and scientific committee was disappointed in many instances to find that relics of unusual value such as the glider with which Orville Wright remained aloft ten minutes without a motor, some months ago had been destroyed. It was also impossible to secure the Langley machine, which was presented to the Smithsonian Institution after his death. It was for Langley that the Government appropriated \$50,000 for experimental purposes, and it was believed but for an accident in launching his machine he would have been able to have realized his dreams. His failure brought forth criticism and the press satirically referred to him as the "bummer."

He died before receiving proper public recognition or realizing the results that were later to be built upon his experiments. Just before he died the Aero Club of America sent him a letter in recognition of his work. His only comment was, "Send it to the press."

The glider of Israel Ludlow, one of the early experimenters, in which Charles K. Hamilton made ascensions over the Hudson, is also not to be had. It may be recalled that in making an ascension at Ormond Beach Mr. Ludlow was so seriously injured that he has been paralyzed since. The flight was the result of a battle at a dinner table. Two members of the party agreed to make a flight if Mr. Ludlow could build a glider that would lift the combined weight. The work was enthusiastically begun, and after it had been finished Mr. Ludlow said he would try it out alone first.

In describing the accident Mr. Ludlow said: "I took my seat and the aeroplane was tilted upward at its forward end. The signal was given to start, and under the impulse of a speeding automobile the aeroplane rose as though it were being lifted into the air. The rush of wind past the planes and through the braces was for a moment disconcerting, but I forgot it and looked down at the automobile, which appeared to be directly under me. I turned to look backward, and in comparing the level at which the aeroplane floated with the distant line of the Atlantic Ocean's horizon I saw they were very near the same."

**Heard an Ominous Crack.**

"When I heard an ominous crack to my left, just in the rear of the forward planes, I saw a wire brace had snapped and that a bamboo stick, released from the wire stay under the air pressure, was bending in a curve. Very quickly, after another gave way and the forward planes bent upward, the aeroplane lost its lifting capacity and began to fall with increasing velocity. I was something more than a hundred feet up when the accident happened."

In the few seconds which elapsed between the first downward move and when the aeroplane struck the beach I watched one wire after another snap and the bending and breaking of bamboo. The rapid approach of the earth did not inspire any feeling of fear. I heard the confused shouting of spectators and then the sensation of a tremendous blow. The point on which I was seated struck the beach first and the rest of the aeroplane fell on me. I received a very severe injury to my back and within half an hour was being rushed

The Wright Brothers

by train to New York for medical treatment. Mr. Ludlow attributed the accident to improper bracing.

Although the club was unfortunate in not obtaining these relics it was more fortunate in securing specimens of the efforts of the late Octave Chanute, who in 1893 experimented with four types of gliders. Some of the Chanute machines, through the courtesy of the Aero Club of Illinois, are included in the exhibits. One of them is a copy of the Lilienthal glider, in which its inventor met his death.

The Wrights followed in the footsteps of Lilienthal and Chanute when in 1899, 1900 and 1902 they conducted gliding experiments and with more success than their predecessors. In 1903 the Wrights constructed their first power driven aeroplane, and on December 17 of that year the world's first prolonged motor aeroplane flight was made by them at Kitty Hawk, N. C. Propellers from the early Wright machines have been lent for the exhibition.

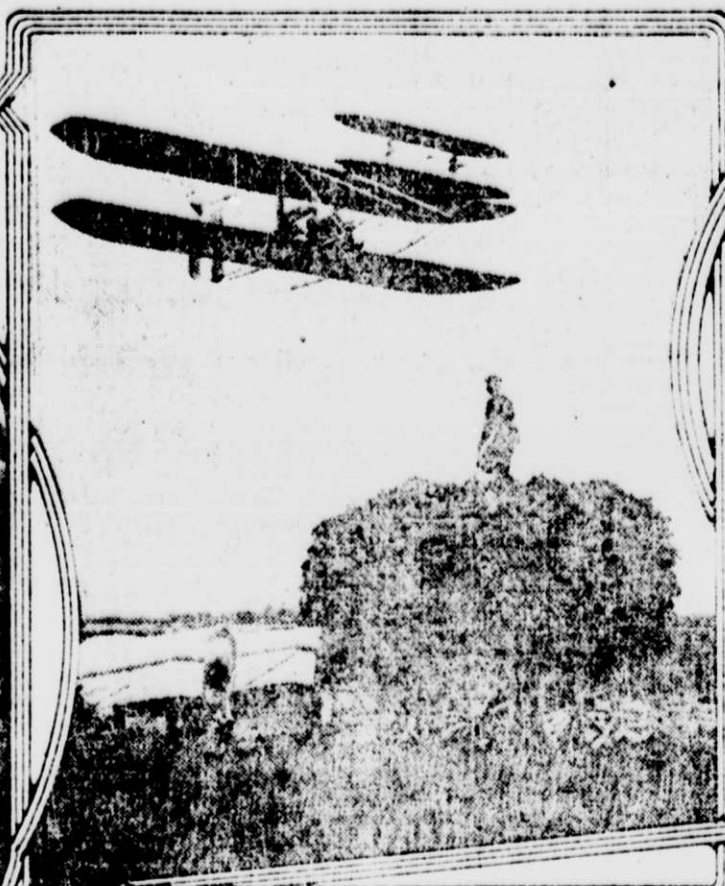
The Wright experiments were soon followed by those of the Aero Club Experiment Association, founded by Dr. Alexander Graham Bell. It may be interesting to know that the idea was conceived by Mrs. Bell. Dr. Bell had been experimenting with tetrahedral kites, and associated were F. W. Baldwin and J. A. D. McCurdy, two young Canadians. He had also enlisted the services of Glenn H. Curtiss, a motor builder of Hammondsport, N. Y., and Lieut. Thomas Selfridge, a nephew of Rear Admiral Selfridge, who had made a study of heavier than air machines. Mrs. Bell suggested that a scientific association be formed, and immediately made the proposition to provide the funds with which to carry on the experiments. The organization was founded, and five machines, the Red Wing, the White Wing, the June Bug, the Silver Dart and the Cygnet, or Dr. Bell's tetrahedral kite, were the result.

## Made Number of Flights.

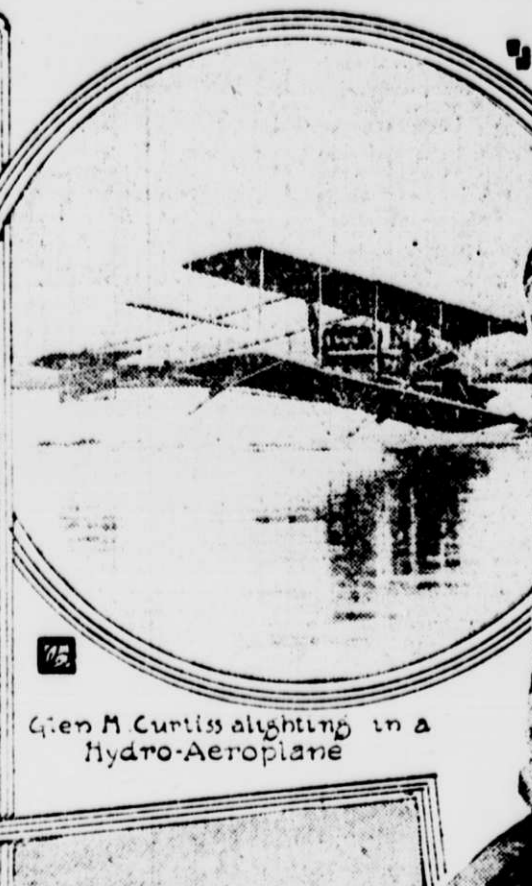
McCurdy made a number of successful flights with the Silver Dart. The June Bug, the invention of Curtiss, won the Scientific American trophy in 1908 in a flight of more than a kilometer. Curtiss continued his experiments, and the first machine to sustain long and continuous flight was purchased by the Aeronautical Society for exhibition purposes. The first public exhibition was given at the old Morris Park racetrack. There were no aviators in those days, and each man had to fly his own invention. With confidence based principally on theory, they were slow to take chances, and when a crowd turned out to see a flight there was usually no flight. It ended by demands for a return of the entrance fee. The blame was always put on the weather.

One of the ways in which Mr. Curtiss determines atmospheric conditions is to gauge it by cigar smoke. Not being a smoker himself, he distributes cigars among his friends and watches the smoke. A smoker lights the cigar and holding his head back blows the smoke straight up into the air. If it rises in a perpendicular line it is considered good flying weather, if not the sport is postponed. Another way is to hold a handkerchief at arm's length, the trained sense of an aviator enabling him to judge of the wind's velocity. This is one of the habits of Wilbur Wright. Both Mr. Wright and Mr. Curtiss are cautious about the weather. Wilbur Wright, it will be remembered, spent many days at Governors Island during the Hudson-Fulton celebration before he would trust himself aloft. With these same machines the present day daredevil aviator would be able to accomplish wonders, which would indicate that the big achievements are due to the skill of these reckless riders rather than to any pronounced improvement on the part of the inventors.

After delivering the machine to the Aeronautical Society and instructing an aviator Mr. Curtiss built a duplicate, with which he won the Gordon Bennett race at Reims in 1909 over a twenty kilometer course at a speed of forty-six miles an hour. Hamilton used the same machine at the Los Angeles meet in 1910 and in his Philadelphia-New York flight since it has been flown by McCurdy, Godet and Witmer, and finally used at the



In Full Flight



Glenn M. Curtiss alighting in a Hydro-Aeroplane



Original Wright aeroplane with front rudder

Clifford B. Harmon, Capt. Thomas S. Baldwin, Roy Knabenshue, Philip Wilcox, noted aviators.

training school at San Diego. With its original motor it will be exhibited at the Aero Club's show. The old June Bug, having been rechristened the Loon, being the pioneer hydro-aeroplane, will also be on view.

Interesting in the foreign exhibits will be an Antoinette monoplane, a type made famous by Hubert Latham, "the man with the cigarette," who made a specialty of sensational feats, such as flying in storms and going duck shooting in an aeroplane. The Antoinette was a dangerous bird. It had not flown after floor on the ground, and its makers were about ready to give it up when this young boulevardier appeared and offered to drive it. And the machine and Latham both jumped into fame. It was one of Latham's habits as a boulevardier to smoke cigarettes in a long holder. One of his tricks while flying was to take out a match and light his cigarette. Those who saw the young Frenchman at the Belmont Park meet will recall him always with a cigarette in a long holder.

## WONDERFUL SILENCE BELTS IN SEA FOGS

BANGOR, Me., April 26.—In Washington recently, in the course of a hearing on petitions asking that a lighthouse be placed off Monhegan Island on the Maine coast, Capt. Frank Brown of the steamer Camden testified concerning peculiar conditions that exist in that neighborhood affecting the transmission of sound.

Capt. Brown said that the whistling buoy off Manana Island, a small sea rock lying to the north of Monhegan, is frequently inaudible, and when this happens in foggy weather vessels approaching the entrance to Penobscot Bay from the West and South are in danger of losing their bearings and going to smash on the rocky shores of the islands or the main land. There is a fine big light on Monhegan, visible many miles at sea in clear weather, but in that region of frequent and heavy fogs the pilots have great difficulty at the season when passenger travel is at its height in picking up the island and getting a new point of departure, owing to their inability to hear the little whistling buoy.

In calm weather of course a whistling buoy is of little account, as the volume of its sound depends upon the movement of the sea, but it is a peculiarity of the Monhegan whistle that even when the sea is rough it cannot be detected upon being mysteriously silent sometimes when its warning note is most needed. This is attributed to



Limousine Aeroplane built to order for private owner

## Delivered First Aero Message.

The machine to be shown belongs to Harry Harkness, one of the first American sportsmen to take up flying. Mr. Har-

ness was the first aviator to deliver to the American officers at Tia Juana, Mexico, a war message, together with some instruments. It was the first war message ever carried. Mr. Harkness bought two

the existence in that neighborhood of "silence belts" or, as sailors call them, "ghosts of the sea."

These areas, impenetrable by sound, shift about in a strange way, occupying one segment of a circle to-day and another tomorrow.

Thus on a Monday the Monhegan whistler or the foghorn on the island may be distinctly audible in the south-west, but not to the southeast, while on a Tuesday the conditions may be reversed, and the next day a still different distribution of sound may prevail. In such circumstances a vessel might be almost upon the rocks before her people heard the whistle or the foghorn.

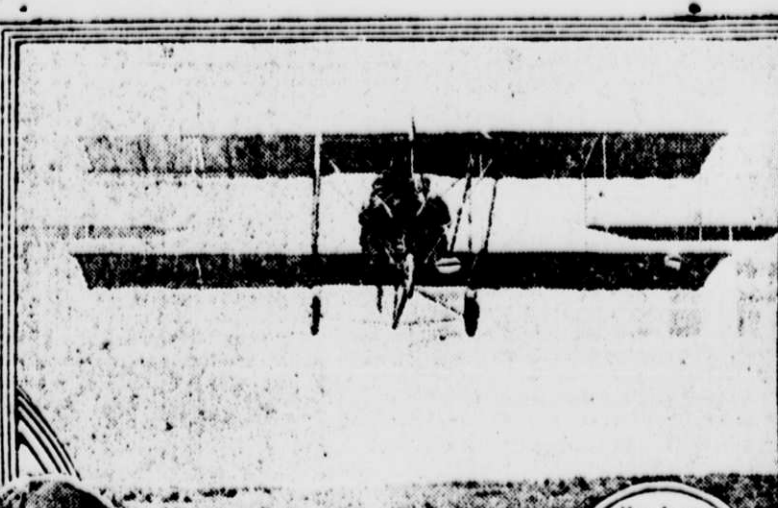
One of the explanations given for the peculiar conditions controlling sound distribution off Monhegan is that the sound waves are deflected by the fog-laden atmosphere and sent upward along a space at high altitude, are again deflected to the water level, thus creating the so-called silence belts. It frequently happens that the whistle, while heard plainly on deck, is inaudible to a man aloft and vice versa.

Three steamers were used in these experiments, moving back and forth on different courses, and their pilots found that at times it was impossible to hear the fog signal on White Head, although they could distinctly see the steam escaping from the horn. Sometimes all sound would cease for ten or fifteen minutes at a time, to be picked up again later. At other times no sound could be heard on deck, while the blasts of the whistle could be plainly heard by a man fifty feet aloft.

Under certain atmospheric conditions sound can be heard at great distances, and frequently it occurs that a remarkable difference exists under the same apparent conditions. A fog signal may be heard faintly for several minutes and then will come a heavy blast as if close aboard, succeeded by more faint sounds. It has been noticed that just before a rainstorm these signals may be heard at much greater distances than under usual conditions.

## A 12 Pound Trout From Montana Stream.

From the Anaconda Standard. What is said to be the largest trout caught in Montana streams was received from J. W. Scott, proprietor of the hotel at Armistead. It weighed 12 pounds, 8 ounces. From tip of tail to mouth it measured nearly three feet in length, a yardstick extending an inch at each end when laid beside the catch. It was 16 inches around the fish, measuring over the back fin.



Machine with two steering wheels used for teaching aviation



The latest mechanical bird



Harriet Quimby ready for flight



The first flight in Japan. Parade ground at Osaka.

machines and spent a small fortune on them, but Mrs. Harkness objected so seriously that he soon abandoned the sport.

The Morane monoplane, in which Vedrines made his trip from Paris to Madrid, will also be among the French exhibits, as will Miss Harriet Quimby's biplane, with which she crossed the English Channel.

Clifford B. Harmon has loaned his Farman biplane in which he made flights at Mineola and several meets in the amateur class. Like Mr. Harkness he abandoned flying to please his family.

Several other wealthy young sportsmen were initiated into the art of flying at the Nassau Boulevard last summer, but have not stuck to the sport.

Robert J. Collier, president of the Aero Club of America and the owner of two Wright biplanes, was the first to make aeroplanes rides the feature of a house party. At his country place at Wickatunk, N. J., he engaged Sopwith, the English aviator, and Welch, the instructor in the Wright school, to take as many guests as would go. During the week-end party Mr. Collier gave a hunt and rode from his house to the starting point in his hunting suit. His guests included Richard Harding Davis and a number of well known sportsmen. Both Curtiss and Wright hydro-aeroplane biplanes will be on view.

The Wright machine used by Frank Coffyn over the Hudson has been obtained. In September, 1911, Coffyn with Messrs. Fred A. and Russell Alger of Detroit, began the development of the hydro. The first set of boats fitted to the machine had aluminum bottoms with mahogany sides, whereas the two later sets of floats are constructed entirely on a wooden frame. Mr. Coffyn was also one of the first to use a starting device from the seat.

## Attached Canoe to Machine.

Originally Wilbur Wright attached a canoe underneath the machine when flying over water. He used a sixteen foot boat in his trip over the Hudson during the Hudson-Fulton celebration. At that time the Wrights had not equipped their machines with wheels and it was launched from a track. The first machine bought by the United States Government was built on this plan. The Wrights have also done away with a front rudder. On their latest patterns they are showing a new automatic device. While there have been changes, this country has not progressed far enough to strive for luxury in aerial vehicles, as is being done on the other side. To the order of a private party Harriet built a limousine monoplane that carries four passengers besides the aviator, who occupies a seat in front of the enclosure. It has made flights of sixteen

minutes. Another new machine which made its appearance at the Paris show was the Marcey-Moonen monoplane, with folding wings. This machine is most bird-like in looks and is flown by swinging the wings around.

Capt. Thomas S. Baldwin, the veteran aviator, has lent his Red Devil, with which he made flights in China and Japan last year. It was the first time that a flying machine had been seen in those countries.

The army will send its Wright-Burgess biplanes with a wireless equipment. Motors and other devices both domestic and foreign will supplement the exhibits.

A biplane with a unique system of control, constructed by W. Starling Burgess, known as the Flying Fish, will have a place among the exhibits. It has neither wheels nor supplementary wing tips. It has made many successful flights.

The original American monoplane is included in the show. It was built by the late A. L. Piltzner at the Curtiss factory in 1910 and was flown by Piltzner. The American II, the balloon in which Allan Hawley and Augustus Post established the American record for distance and won the Gordon Bennett trophy in 1910, will have a place in the historical section.

Relics of the Wellman airship which started for the north pole will also be there. Capt. Horace Wild has loaned the framework of a copy of a Parseval dirigible, one of the latest German airships. A frame work of a Zodiac dirigible made in France is also exhibited through the courtesy of A. Leo Stevens.

## Bomb Throwing From Skies.

It is the purpose to show in moving pictures such machines as will not be on exhibition. As a preliminary to the big show there will be a hydro-aerobion race over the Hudson May 1. A number of events have been scheduled for the day, including speed contests, passenger carrying, bomb throwing and mail carrying.

It is believed by members of the Aero Club that over water flying will become a popular pastime for sportsmen, as it offers more safety than flights over the ground.

Although the club has a membership of over 500 few of them have taken trips to the clouds. Neither Cortlandt Field Bishop nor Allen A. Ryan, the former presidents, ever took a ride. Mr. Ryan presented to the club a Steiropart monoplane, which will be on exhibition at the show.

The cost of aeroplanes is frequently given as a reason that more are not in use, but this could hardly apply to the membership of the Aero Club. The prices of standard machines range from \$500 to \$7,500 and copies may be obtained much cheaper.

Several of the members have offered individual prizes for events. Clarence H. Mackay has put up a trophy to be awarded in the army for competitive flying in advancing the efficiency of aviation in military service, while Harry Payne Whitney has offered a trophy to be awarded in the navy under the same conditions. The Aero Club of America trophy, presented to the club by Robert J. Collier, is to be annually awarded for the greatest achievement in aviation in America the value of which has been demonstrated by use during the preceding year.

The following is the committee in charge of exhibition: W. F. Twombly, chairman; A. Holland, Forbes, Alfred Reeves, Charles E. Spratt, Otis Fenner Wood, E. L. Jones, Roger B. Whitman, Charles de San Marzano, G. F. Campbell Wood, Henry A. Wise Wood, Rodman Wanamaker and L. B. Alexander.

Officers of the Aero Club are: President, Robert J. Collier; first vice-president, James A. Blair, Jr.; second vice-president, Samuel Reber; third vice-president, Harold F. McCormick; fourth vice-president, Henry A. Wise Wood; treasurer, Charles Jerome Edwards; secretary, Cortlandt F. Bishop.

The honorary members are: The President of the United States, the Governor of the State of New York, the Mayor of the city of New York, Counte Henri de La Vaulx, Lieut. Frank Purdy Lahm, U. S. A.; James Gordon Bennett, Wilbur Wright and Orville Wright.

Among the life members was the late John Jacob Astor.